

World Vegetable Center

Field report

Inviolate Dominick1, Hassan Mndiga 1

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[www.africa-rising.net](http://www.africa-rising.net)

The [Africa Research In Sustainable Intensification for the Next Generation](http://africa-rising.net/) (Africa RISING) program comprises three research-in-development projects supported by the United States Agency for International Development (USAID) as part of the U.S. Government’s Feed the Future initiative.

Through action research and development partnerships, Africa RISING is creating opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base.

The three regional projects are led by the International Institute of Tropical Agriculture (in West Africa and East and Southern Africa) and the International Livestock Research Institute (in the Ethiopian Highlands). The International Food Policy Research Institute leads the program’s monitoring, evaluation and impact assessment.

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# Name of traveler(s)

• Inviolate Dominick

• Hassan Mndiga

## Purpose of trip

* To monitor and give backstopping to the farmers supported by Africa RISING and IDP project in Karatu on:
  + Aspects of nursery management specifically on seedbed preparation, vegetable seed sowing in nursery beds and trays in 1st phase villages
  + Conduct pest and disease incidence survey prior to the establishment of second round demo trials
  + Follow up and monitor ongoing activities in the demo trials and provide support to farmer group members

## Country(s) visited

Tanzania

## Dates of trip

July 6-11, 2020

## Budget source

10000175-13

# List of people met during the trip and their details

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| --- | --- | --- |
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# Important results/information gathered during the trip

## Re-establishment of failed nurseries and monitoring the performance of vegetable in farmers’ fields

* Overall, vegetables grown in the fields and home gardens are performing well. Some are at harvesting stage and vegetables are used for home consumption and the surplus sold.
* About 35% of the farmers who received practical training on the construction of keyhole garden in March 2020 have established their own and have grown vegetables for household consumption and sale of surplus as a source of income. Some farmers mentioned that the vegetables from the keyhole garden provide the families with micronutrients especially during COVID-19 pandemic.
* In collaboration with extension agents farmers were demonstrated on how to prepare nursery beds, soil mixture, cleaning of plastic trays and how to sow seeds. Elite seeds of three varieties namely tomato (variety Tanya), Nightshade (Nduruma) and Ethiopian mustard (Rungwe) were distributed to 64 farmers selected to manage the demo trials. Tomato and Nightshade seeds were sown earlier because they take time to germinate and need about 4 weeks before transplanting. Ethiopian mustard (variety-Rungwe) will be sown later (July 28th, 2020) and decided that by August 12, 2020 all the seedlings for the three vegetable crops would be transplanted in the demo plots.
* The farmers were trained on nursery management practices before transplanting in demo plots and on the importance of hardening off the seedlings for at least one week before transplanting in their demo plots.
* Practical demonstration to farmers on stalking and pruning/DE suckering of tomato plants was done in few farmer fields in 1st phase 8 villages (16 farmer fields, 2 per village)
* Overall, most of tomato plants grown were affected by draught and heavy rains that was observed from March through to early June 2020.
* Farmer trainers were provided with a forms to list down name of farmers they have trained including the technologies which the trainees have applied in their fields regarding vegetable production for improved nutrition, value addition and as sources of income.

## Pest and diseases incidence survey

* In most fields aphid have been observed in Ethiopian mustard vegetable crop and some farmers tried to control by applying ash
* Birds have caused problems in few field especially on nightshade and few case on Ethiopian mustard. Some farmers in Changarawe have put plastic sheets blown by wind to scar birds and some have put nets to deter birds.
* In drier areas mites attacked nightshade but the cases are very minimal.
* Late blight cases were observed but heavy infestation occurred in high elevation areas especially in Buger village.
* Mottled leaves (viral symptom) were observed on Ethiopian mustard especially in field were Aphid were present.
* White spots on tomato crop observed in early planted crops where moisture was high.

# Suggestions for follow up

* + Inviolate in collaboration with Extension agents, farmer group members assist in monitoring and provide technical support of vegetable seedlings in the nursey.
  + In collaboration with extension officers, farmer group members to finalize preparations of 64 demo plots, collection and application of well decomposed manure in the field.
  + Extension agent in collaboration with farmer trainers to check any emerging disease/pathogen, 14 days after spraying of natural pesticides.
  + Extension agent in collaboration with farmer trainers to manage emerging pest particularly crickets, cut worms and beetles in the nursery.
  + Farmers to continue taking precaution measures on diseases such as leaf spot, early and late blight, grey mold though use of recommended IPM practices.
  + Farmers to adhere to the instructions, especially on crop and field sanitation and carefully keep the nursery clean throughout.
  + Analysis and finalize pest and disease report – Hassan Mndiga

# Photos or other supporting documents

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**Figure 1.** (Left) Raise of health seedlings in plastic trays; (Right): identification of pests from farmer practice field. Photos credit: Inviolate Dominick/ World Vegetable Center

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**Figure 2.** Production and Save vegetable seeds by farmers for next season and sale the excess for income generation. Photo credit: Inviolate Dominick/ World Vegetable Center

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**Figure 3.** Farmers presenting their vegetable keyhole gardens which they have constructed after receiving training facilitated by Worldveg in March 2020. Photo credit: Inviolate Dominick/ World Vegetable Center